MSU 4.1-596

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Brage Golding, Connie Bednarski-Meinke and

Zhong-ning Dai

For : HETEROEPITAXIAL DIAMOND AND DIAMOND NUCLEI

**PRECURSORS** 

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Sir:

## INFORMATION STATEMENT UNDER RULE 1.97 and 1.98

Provided herewith are copies of patents and publications as listed in the attached form PTO-1449. A concise explanation of the relevance of each reference listed in form PTO-1449 is contained in the above-captioned specification as filed.

Applicant respectfully asserts that the substantive provisions of 37 CFR 1.97 and 37 CFR 1.98 are met by the provision of the foregoing statement.

Respectfully,

Brage Golding
Date: 5 Augus, 2003

Connie Bednarski-Meinke
Date:

Zhong-ning Dai
Date:

Jan C. McLeod, Attorney

Ian C. McLeod, Attorney Registration No. 20,931

Date: august 5, 2003

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(517) 347-4100 Fax: (517) 347-4103 PTO/SB/08A (10-96)
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			CLOSURE	Filing Date		
STA	TEMENT	BY AF	PLICANT	First Named Inventor	Brage Golding	
				Group Art Unit		
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Sheet	1 .	of		Attorney Docket Number	MSU 4.1-596	

				U.S. PATENT DOCUM	MENTS	
Examiner Initials	Cite No.1	U.S. Pater Number	nt Document Kind Code <sup>2</sup> (Nimown)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	5,397,	428	Stoner, et al		
		5,587,		Marchywka et al		
	AC	5,743,		Kobashi et al		
	AD	5,863,		Kobashi et al		
	AE	5,891,		Marchywka et al	<u> </u>	·
	AF	5,993,		Tsuno et al	<u> </u>	
	AG	6,032,		'Asakawa et al		
	AH	6,063,		Lee et al		
	AI	6,080,		Yokota et al	<u>                                     </u>	
		6,096,		Saito et al		
	AK	6,383,	288	Hayashi et al		
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	FOREIGN PATENT DOCUMENTS										
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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitu	ute for form 1449	e/PTO			Complete if Known		
INFORMATION DISCLOSURE					Application Number		
					.Filing Date		
STATEMENT BY APPLICANT				APPLICANT	First Named Inventor	Brage Golding	
				u i Liorui	Group Art Unit		
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Sheet	1		of		Attorney Docket Number	MSU 4.1-596	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS								
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), tide of the article (when appropriate), tide of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	1,5					
	A1	Ohtsuka, K., et al., Jpn. J. Appl. Phys. 36, 1214 (1997)						
	в1	Schreck, M., et al., Appl. Phys. Lett. 74, 650 (1999)						
-	C1	Tsubota, T., et al., Diamond and Related Materials 9, 1380 (2000)						
	D1	Hormann, et al., Diamond and Related Materials 9, 256 (2000)						
	E1	Dai, Z., et al., Proc. Mat. Res. Soc., P11.35, 684 (2001)						
	F1	Wolter, S., et al., Appl. Phys. Lett. 62, 1215 (1993)						
	G1	Jiang, X., Diamond and Related Materials 2, 1112 (1993)						
	н1	Wild, C., et al., Diamond and Related Materials 3, 373 (1994)						
	Ι1	Ohtsuka, K., et al., Jpn. J. Appl. Phys. Pt. 2, 35 (1996) L1072						
	J1	Ohtsuka, K., et al., Jpn. J. Appl. Phys. Pt. 2, 36 (1997) L1214						
	к1	Schreck, M., et al., Appl. Phys. Lett. 78, 192 (2001)						

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				Application Number		
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JIA			n i bionii	Group Art Unit		
	(use as ma	any sh	ets as necessary)	Examiner Name		
Sheet	2		k	Attorney Docket Number	MSU 4.1-596	

Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journel, seriel, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
	L2	Yugo, S., et al., Appl. Phys. Lett. 58, 1036 (1991)	
	М2	Loloee, R., et al., Phil. Mag. A 81, 261 (2001)	
	N2	Wolfing, B., et al., J. Phys: Condensed Matter 11, 2669 (1999)	
	02	Vargas, R., et al., Appl. Phys. Lett. 65, 1094 (1994)	
	Р2	Kronberg, M.L., Acta Metall. 5, 507 (1957)	
	Q2	Kuo, K.P., et al., Diamond and Related Materials 6, 1097 (1997)	
	R2	Kulisch, W., et al., Physica Status Solidi A 154, 155 (1996)	
	S2	Stockel, et al., J. Appl. Phys. 79, 768 (1996)	
	т2	Whitfield, M.D., et al., Diamond and Related Material 9, 305 (2000)	

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